

Amendments to the Claims

In the Claims:

1. (Currently amended) A coating ~~composition~~, comprising the product of the reaction of:

a silane having at least one functional group selected from the group consisting of an isocyanate, an isothiocyanate, an ester, an anhydride, an acyl halide, an alkyl halide, an epoxide and an aziridine; and

a biopolymer,

wherein said product is directly coated onto a surface of a ~~substrate~~ medical device by covalent attachment of a silicon atom to said medical device. ~~substrate, and provided that said biopolymer is not a nucleic acid.~~

Claims 2 - 3 (cancelled).

4. (Currently amended) The coating ~~composition~~ of claim 1, wherein said functional group is an isocyanate.

5. (Currently amended) The coating ~~composition~~ of claim 4, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

6. (Currently amended) The coating ~~composition~~ of claim 1, wherein said biopolymer is a complex selected from the group consisting of heparin-tridodecylmethylammonium

chloride, heparin-benzalkonium chloride, heparin-stearalkonium chloride, heparin-poly-N-vinyl- pyrrolidone, heparin-lecithin, heparin-didodecyldimethylammonium bromide, heparin-pyridinium chloride, and heparin-synthetic glycolipid complex.

7. (Currently amended) The coating ~~composition~~ of claim 1, wherein said biopolymer has hydroxyl or amine functional groups.

8. (Currently amended) The coating ~~composition~~ of claim 1, wherein said biopolymer comprises heparin.

9. (Currently amended) The coating ~~composition~~ of claim 7, wherein said biopolymer is provided in a form capable of dissolving in an organic solvent.

10. (Currently amended) The coating ~~composition~~ of claim 1, wherein the biopolymer provides thromboresistance.

11. (Currently amended) The coating ~~composition~~ of claim 1, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

12. (Currently amended) The coating ~~composition~~ of claim 1, further comprising at least one additive selected from the group consisting of wetting agents, surface active agents and film forming agents.

13. (Currently amended) The coating ~~composition~~ of claim 1, wherein the silane has an organic chain between isocyanate and silane functional groups.

Claims 14 - 59 (cancelled).

60. (Currently amended) A coating ~~composition~~, consisting essentially of the product of the reaction of:

a silane having at least one functional group selected from the group consisting of an isocyanate, an isothiocyanate, an ester, an anhydride, an acyl halide, an alkyl halide, an epoxide and an aziridine; and

a biopolymer,

wherein said product is directly bonded to a surface of a medical device, ~~substrate, and~~
~~provided that said biopolymer is not a nucleic acid.~~

61. (Currently amended) The coating ~~composition~~ of claim 60, wherein said functional group is an isocyanate.

62. (Currently amended) The coating ~~composition~~ of claim 61, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

63. (Currently amended) The coating ~~composition~~ of claim 60, wherein said biopolymer is a complex selected from the group consisting of heparin-tridodecylmethylammonium chloride, heparin-benzalkonium chloride, heparin-stearalkonium

chloride, heparin-poly-N-vinyl-pyrrolidone, heparin-lecithin, heparin-didodecyldimethylammonium bromide, heparin-pyridinium chloride, and heparin-synthetic glycolipid complex.

64. (Currently amended) The coating ~~composition~~ of claim 60, wherein said biopolymer has hydroxyl or amine functional groups.

65. (Currently amended) The coating ~~composition~~ of claim 60, wherein said biopolymer comprises heparin.

66. (Currently amended) The coating ~~composition~~ of claim 60, wherein said biopolymer is provided in a form capable of dissolving in an organic solvent.

67. (Currently amended) The coating ~~composition~~ of claim 60, wherein the biopolymer provides thromboresistance.

68. (Currently amended) The coating ~~composition~~ of claim 60, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

69. (Currently amended) The coating ~~composition~~ of claim 60, further comprising at least one additive selected from the group consisting of wetting agents, surface active agents and film forming agents.

70. (Currently amended) The coating ~~composition~~ of claim 60, wherein said silane has an organic chain between isocyanate and silane functional groups.

71. (Currently amended) The coating ~~composition~~ of claim 1, wherein said silane and said biopolymer are reacted in a common solvent.

72. (Currently amended) The coating ~~composition~~ of claim 71, wherein said solvent is an anhydrous organic solvent.

73. (Currently amended) The coating ~~composition~~ of claim 72, wherein said solvent is tetrahydrofuran.

74. (Currently amended) The coating ~~composition~~ of claim 60, wherein said silane and said biopolymer are reacted in a common solvent.

75. (Currently amended) The coating ~~composition~~ of claim 74, wherein said solvent is an anhydrous organic solvent.

76. (Currently amended) The coating ~~composition~~ of claim 75, wherein said solvent is tetrahydrofuran.

77. (Currently amended) The coating ~~composition~~ of claim 71, wherein said functional group is an isothiocyanate, said biopolymer is heparin-tridodecylmethylammonium chloride, and said organic solvent is tetrahydrofuran.

78. (Currently amended) The coating ~~composition~~ of claim 74, wherein said functional group is an isothiocyanate, said biopolymer is heparin-tridodecylmethylammonium chloride, and said organic solvent is tetrahydrofuran.

Claim 79 (cancelled).